

## PATENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner  
 US Department of Commerce  
 United States Patent and Trademark  
 Office, PCT  
 2011 South Clark Place Room  
 CP2/5C24  
 Arlington, VA 22202  
 ETATS-UNIS D'AMERIQUE  
 in its capacity as elected Office

<b>Date of mailing (day/month/year)</b> 22 August 2001 (22.08.01)	
<b>International application No.</b> PCT/US00/26951	<b>Applicant's or agent's file reference</b> P51034
<b>International filing date (day/month/year)</b> 29 September 2000 (29.09.00)	<b>Priority date (day/month/year)</b> 01 October 1999 (01.10.99)
<b>Applicant</b> MARINO, Joseph, P., Jr. et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

20 April 2001 (20.04.01)

☐ in a notice effecting later election filed with the International Bureau on:
2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	<b>Authorized officer</b> Zakaria EL KHODARY Telephone No.: (41-22) 338.83.38
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# PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: NORA STEIN-FERNANDEZ  
SMITHKLINE BEECHAM CORPORATION  
CORPORATE INTELLECTUAL PROPERTY, UW2220  
709 SWEDELAND ROAD, P. O. BOX 1539  
KING OF PRUSIA, PA 19406-0939

RECEIVED  
SMITHKLINE BEECHAM  
PCT  
2001 MAR 26 A 11: 50

## NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION

(PCT Rule 44.1)

Date of Mailing (day/month/year)	19 MAR 2001
Applicant's or agent's file reference P51034	FOR FURTHER ACTION See paragraphs 1 and 4 below
International application No. PCT/US00/26951	International filing date (day/month/year) 29 SEPTEMBER 2000
Applicant SMITHKLINE BEECHAM CORPORATION	

- ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.  
**Filing of amendments and statement under Article 19:**  
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):  
**When?** The time limit for filing such amendments is normally 2 months from the date of transmittal of the international search report; however, for more details, see the notes on the accompanying sheet.  
**Where?** Directly to the International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland  
Facsimile No.: (41-22) 740.14.35  
**For more detailed instructions, see the notes on the accompanying sheet.**
- ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.
- ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
  - ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
  - ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.
- Further action(s):** The applicant is reminded of the following:  
Shortly after 18 months from the priority date, the international application will be published by the International Bureau.  
If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in rules 90 bis 1 and 90 bis 3, respectively, before the completion of the technical preparations for international publication.  
Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).  
Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer TAOFIQ A. SOLOLA Telephone No. (703) 308-1235
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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>P51034</b>	<div style="display: flex; justify-content: space-between;"> <div> <b>FOR FURTHER ACTION</b> </div> <div>           see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.         </div> </div>	
International application No. <b>PCT/US00/26951</b>	International filing date (day/month/year) <b>29 SEPTEMBER 2000</b>	(Earliest) Priority Date (day/month/year) <b>01 OCTOBER 1999</b>
Applicant <b>SMITHKLINE BEECHAM CORPORATION</b>		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

#### 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:
 

☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.
2. ☐ Certain claims were found unsearchable (See Box I).
3. ☐ Unity of invention is lacking (See Box II).
4. With regard to the **title**,
 

☐ the text is approved as submitted by the applicant.  
☒ the text has been established by this Authority to read as follows:  
**1,2,4-TRIAZOLE DERIVATIVES, COMPOSITION, PROCESS OF MAKING AND METHODS OF USE.**
5. With regard to the **abstract**,
 

☒ the text is approved as submitted by the applicant.  
☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
6. The figure of the drawings to be published with the abstract is Figure No. \_\_\_\_
 

☐ as suggested by the applicant. ☐ None of the figures.  
☐ because the applicant failed to suggest a figure.  
☐ because this figure better characterizes the invention.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/26951

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : Please See Extra Sheet.

US CL : 514/340, 378, 384; 546/272.4; 548/244, 263.8

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 514/340, 378, 384; 546/272.4; 548/244, 263.8

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
CAS ONLINE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- A	US 5,760,246 A (BILLER ET AL) 02 June 1998 (02/06/98), see compound 383, column 213 and the abstract.	16-17 ----- 1-15,18-21
X,P ---- A,P	DE 199 22 443 A1 (MUHLBAUER ET AL) 09 November 2000 (09/11/00), see especially compound (Beispiel) 4, page 11.	16-17 ----- 1-15,18-21



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
*A* document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
*E* earlier document published on or after the international filing date	*Y* document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*&* document member of the same patent family
*O* document referring to an oral disclosure, use, exhibition or other means	
*P* document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

01 FEBRUARY 2001

Date of mailing of the international search report

19 MAR 2001

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

TAOFIQ A. SOLOLA

Telephone No. (703) 308-1235

INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/26951

A. CLASSIFICATION OF SUBJECT MATTER:  
IPC (7):

A61K 31/422, 31/4196, 31/4439; C07D 261/02, 249/12, 249/14, 401/02, 413/02

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P51034	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/26951	International filing date (day/month/year) 29 SEPTEMBER 2000	Priority date (day/month/year) 01 OCTOBER 1999
International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet.		
Applicant SMITHKLINE BEECHAM CORPORATION		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 1 sheets.  
☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  
These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 20 APRIL 2001	Date of completion of this report 13 DECEMBER 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer TAOFIQ A. SOLOLA <i>[Signature]</i>
Facsimile No. (703) 305-9230	Telephone No. (703) 306-1235

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/26951

## I. Basis of the report

## 1. With regard to the elements of the international application: \*

☒ the international application as originally filed☒ the description:

pages 1-101

pages NONE, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of

☒ the claims:

pages 102-154

pages NONE, as originally filed

pages NONE, as amended (together with any statement) under Article 19

pages NONE, filed with the demand

pages NONE, filed with the letter of

☒ the drawings:

pages NONE

pages NONE, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of

☒ the sequence listing part of the description:

pages NONE

pages NONE, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☒ The amendments have resulted in the cancellation of:☒ the description, pages NONE☒ the claims, Nos. NONE☒ the drawings, sheets/figs NONE5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\*Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/26951

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. statement

Novelty (N)

Claims 1-15, 18-21

YES

Claims 16-17

NO

Inventive Step (IS)

Claims 1-15, 18-21

YES

Claims 16-17

NO

Industrial Applicability (IA)

Claims 1-21

YES

Claims NONE

NO

### 2. citations and explanations (Rule 70.7)

Claims 16-17 lack novelty under PCT Article 33(2) and 33(3) as being anticipated by Biller et al., US 5,760,246. Biller et al., disclose compound 383 in column 213.

Claims 1-15, 18-21 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest the instantly claimed compounds, methods of use and process of making.

----- NEW CITATIONS -----  
NONE



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/26951

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

**CLASSIFICATION:**

The International Patent Classification (IPC) and/or the National classification are as listed below:  
IPC(7): A61K 31/422, 31/4196, 31/4439; C07D 261/02, 249/12, 249/14, 401/02, 413/02 and US Cl.: 514/340, 378, 384;  
546/272.4; 548/244, 263.8

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/26951

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :Please See Extra Sheet.

US CL :514/340, 378, 384; 546/272.4; 548/244, 263.8

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 514/340, 378, 384; 546/272.4; 548/244, 263.8

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
CAS ONLINE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- A	US 5,760,246 A (BILLER ET AL) 02 June 1998 (02/06/98), see compound 383, column 213 and the abstract.	16-17 ----- 1-15,18-21
X,P ---- A,P	DE 199 22 443 A1 (MUHLBAUER ET AL) 09 November 2000 (09/11/00), see especially compound (Beispiel) 4, page 11.	16-17 ----- 1-15,18-21



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
*A* document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
*E* earlier document published on or after the international filing date	*Y* document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*&* document member of the same patent family
*O* document referring to an oral disclosure, use, exhibition or other means	
*P* document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

01 FEBRUARY 2001

Date of mailing of the international search report

19 MAR 2001

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

TAOFIQ A. SOLOLA

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**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/US00/26951

**A. CLASSIFICATION OF SUBJECT MATTER:**  
**IPC (7):**

A61K 31/422, 31/4196, 31/4439; C07D 261/02, 249/12, 249/14, 401/02, 413/02

CORRECTED VERSION

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
12 April 2001 (12.04.2001)

PCT

(10) International Publication Number  
WO 01/24796 A1

(51) International Patent Classification<sup>7</sup>: A61K 31/422,  
31/4196, 31/4439, C07D 261/02, 249/12, 249/14, 401/02,  
413/02

(21) International Application Number: PCT/US00/26951

(22) International Filing Date:  
29 September 2000 (29.09.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/157,286 1 October 1999 (01.10.1999) US

(71) Applicant (for all designated States except US):  
SMITHKLINE BEECHAM CORPORATION  
[US/US]; One Franklin Plaza, Philadelphia, PA 19103  
(US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): MARINO, Joseph,  
P., Jr. [US/US]; 214 Rock Glen Road, Wynnewood,  
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(74) Agents: STEIN-FERNANDEZ, Nora et al.; SmithKline  
Beecham Corporation, Corporate Intellectual Property,  
UW2220, 709 Swedeland Road, P.O. Box 1539, King of  
Prussia, PA 19406-0939 (US).

(81) Designated States (*national*): AE, AL, AU, BA, BB, BG,  
BR, BZ, CA, CN, CZ, DZ, EE, GE, GH, GM, HR, HU, ID,  
IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK,  
MN, MX, MZ, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT,  
TZ, UA, US, UZ, VN, YU, ZA.

(84) Designated States (*regional*): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian  
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European  
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,  
IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG,  
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

- With international search report.
- Before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments.

(48) Date of publication of this corrected version:

17 May 2001

(15) Information about Correction:

see PCT Gazette No. 20/2001 of 17 May 2001, Section II

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: 1,2,4-TRIAZOLE DERIVATIVES, COMPOSITION, PROCESS OF MAKING AND METHODS OF USE

(57) Abstract: Compounds of this invention are non-peptide, reversible inhibitors of type 2 methionine aminopeptidase, useful in treating conditions mediated by angiogenesis, such as cancer, haemangioma, proliferative retinopathy, rheumatoid arthritis, atherosclerotic neovascularization, psoriasis, ocular neovascularization and obesity.

WO 01/24796 A1